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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,341	07/30/2003	Alan D. Olstein	21001.009	9912

25005 7590 09/15/2006

DEWITT ROSS & STEVENS S.C.
8000 EXCELSIOR DR
SUITE 401
MADISON, WI 53717-1914

EXAMINER

SHEN, BIN

ART UNIT	PAPER NUMBER
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1655

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,341

Applicant(s)

OLSTEIN ET AL.

Examiner

Bin Shen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,7-9 and 12-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-6, 10-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u> </u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The IDS received 7/30/2003 has been entered.

Election

Applicant's election with traverse of Group I, claims 1-11, and election of species of vancomycin as the antibiotic, cobalt as the metal, and Listeria as the microorganism, in the reply filed on 7/28/2006 is acknowledged. The traversal is on the ground(s) that the Office has not carried the burden of providing any reasons and/or examples to support the conclusion that the claims of the restricted groups are in fact distinct. This is not found persuasive because the Office has provided reasons to support that there is a search burden if any of the two restricted groups is searched together (see the previous action).

The requirement is still deemed proper and is therefore made FINAL.

Claims 12-39 are drawn to nonelected claims, claims 3-4, 7-9 are drawn to nonelected species, and thus are withdrawn from further consideration.

Claims 1-2, 5-6, 10-11 are presented for examination on the merits with the elected species.

In view of the election of species requirement, Applicants have elected vancomycin, cobalt and Listeria. A search reveals cobalt may be novel in the claimed complex with vancomycin, hence copper was then selected as the next species and is not novel, see the rejection following.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Nair et al. (CHIRALITY 1996;8:590-595).

Nair et al. teach that vancomycin forms a stable complex with Cu^{2+} in neutral aqueous solutions (abstract).

Therefore, the cited reference is deemed to anticipate the instant claims above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5-6, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Nair et al., in view of each of Olstein et al. (USPN5750357), and Wakatsuki (J Ind Microbiol 1995;14(2):169-177).

See teaching of Nair above.

Nair does not teach the binding of the complex to microorganisms.

Olstein teaches a detectable copolymer useful to detect (bind) the presence of a microorganism (abstract). The detectable polymer comprises a binding agent, such as an

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antibiotic (read as glycopeptide antibiotics-vancomycin) and a detectable label (column 2, lines 51-60).

Wakatsuki teaches metal oxidoreduction by microbial cells and that metal ion-specific reducing enzyme systems function in the cell surface layer of microorganisms (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the vancomycin- Cu^{2+} complex as taught by Nair to bind to microorganisms because Olstein teaches a detectable polymer comprises vancomycin as binding agent and a detectable label to detect (bind) the presence of a microorganism (abstract). One would have been motivated to make the modification because Olstein et al. specifically described antibiotics as binding agent and a detectable label in the complex, and would reasonably have expected success in view of Olstein's teaching that the detectable polymer comprises antibiotics and a detectable label provide a sensitive and rapid method to detect microorganism (column 2, lines 46-47).

Regarding the elected species of cobalt ions, the present specification teaches on page 4 paragraph 15, any of Zn, Cu, Ni, Co, Fe, Mn, Cr, Tc and their isotopes are all useful in the invention. No unexpected results are disclosed for the selection of any of the metals. In this art it is well known to optimize complexes with related ions. Cu is taught by Nair for the same function as claimed which would then render obvious any other +2 related ion for the same function as taught by Nair in the absence of unexpected results. An undisclosed advantage is given little or no weight.

Regarding claims 10-11 which include microorganisms, and *Listeria* is the elected microorganism, Olstein teaches

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pathogenic bacteria and as vancomycin is known to be effective in treating pathogenic Listeria bacteria, one would have a high expectation that the complex of Olstein would bind to Listeria.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

4. No claim is allowed.

Certain papers related to this application may be submitted to Art Unit 1636 by facsimile transmission. The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 C.F.R. § 1.6(d)). The official fax telephone number for the Group is 571-273-8300. NOTE: If Applicant does submit a paper by fax, the original signed copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers in the Office.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance.

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Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Any inquiry concerning rejections or objections in this communication or earlier communications from the examiner should be directed to Bin Shen, Ph.D., whose telephone number is (571) 272-9040. The examiner can normally be reached on Monday through Friday, from about 9:00 AM to about 5:30 PM. A phone message left at this number will be responded to as soon as possible (i.e., shortly after the examiner returns to her office).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Terry McKelvey can be reached at (571) 272-0775.

B Shen

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TERRY MCKELVEY, PH.D.
SUPERVISORY PATENT EXAMINER